

Abstract of the Disclosure

A turbo shaft engine for amplifying an air stream flow rate includes a turbine fan assembly and gas generator. The gas generator includes a primary air duct defining intake and outlet ports. A combustion chamber is connected to the primary air duct for igniting an admixture of fuel and a portion of the intake flow to form an energized motive flow. The motive flow is discharged from the combustion chamber back into the primary air duct over a Coanda-profiled guide member so as to amplify the flow rate of incoming intake flow by momentum transfer. A portion of the motive flow is returned directly to the fan assembly for amplifying incoming intake flow. The remaining motive flow is again combusted and used to rotate turbine blades. A resonance chamber with volume adjustment is included for tuning a pulse of intake flow into the primary combustion chamber.